## **Reasons for Decision**

**Maritimes & Northeast Pipeline Management Ltd.** 

GH-3-2002

November 2002

**Facilities** 

## National Energy Board

## **Reasons for Decision**

In the Matter of

# Maritimes & Northeast Pipeline Management Ltd.

Section 58 Application dated 6 March 2002

GH-3-2002

November 2002

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### **Abbreviations**

Act National Energy Board Act

Bcf billion cubic feet

Board or NEB National Energy Board

Canadian Superior Energy Inc.

CAPP Canadian Association of Petroleum Producers

CEAA Canadian Environmental Assessment Act

CS Compressor Station

CTMS custody transfer meter station

EL Exploration Licence

Emera Emera Energy Inc.

EnCana EnCana Corporation

ESR Environmental Screening Report

FSA firm service agreement

GH-2-87 TransCanada proceeding for approval of facilities and toll methodology

GH-6-96 M&NP and SOEP proceeding for approval of facilities and toll methodology

GH-4-98 M&NP proceeding for approval of the Point Tupper Lateral

GH-2-99 M&NP proceeding for approval of the Halifax Lateral

GJ gigajoule(s)

GLJ Gilbert Laustsen Jung

GLJ Study Gas Resource and Supply Study Scotian Basin Offshore Nova Scotia - A Study

Prepared for Maritimes & Northeast Pipeline

km kilometre

KP kilometre post

kPa kilopascals

MH-2-2002 Province of New Brunswick proceeding respecting Short-Term Export Order

Procedures

MMBtu/d million British thermal units per day

MW megawatt

M&NP or Applicant Maritimes & Northeast Pipeline Management Ltd.

M&NE Maritimes & Northeast Pipeline, L.L.C.

Navigant Consulting Inc.

NB Power New Brunswick Power Corporation

New Brunswick Province of New Brunswick

Nova Scotia Province of Nova Scotia, Department of Energy

NSPI Nova Scotia Power Inc.

OPR-99 Onshore Pipeline Regulations, 1999

PEI Province of Prince Edward Island

psig pounds per square inch gauge

SDLs Significant Discovery Licences

SOEP Sable Offshore Energy Project

Tcf trillion cubic feet

TEK Traditional Ecological Knowledge

TransCanada PipeLines Limited

UNBI Union of New Brunswick Indians

U.S. United States

WC Work Commitments

## **Recital and Appearances**

IN THE MATTER OF the *National Energy Board Act* (the Act) and the regulations made thereunder; and

IN THE MATTER OF an application dated 6 March 2002 by Maritimes and Northeast Pipeline Management Ltd. (M&NP) for an order pursuant to section 58 of the Act to permit it to construct, own and operate four compressor stations and one custody transfer meter station on its mainline;

AND IN THE MATTER OF National Energy Board Hearing Order GH-3-2002.

HEARD at Saint John, New Brunswick on 30 September and 1 to 4 and 7 October 2002.

#### **BEFORE:**

J.-P. Théorêt Presiding Member

K.W. Vollman Member J.A. Snider <sup>1</sup> Member

#### APPEARANCES:

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C. Feltham Chevron Canada Resources

D. Brett East Coast Producer Group

P.W. Gurnham, Q.C. Emera Energy Inc.

D.G. Davies EnCana Corporation

M. Gelowitz J.D. Irving, Limited

T.M. Hughes KeySpan Delivery Companies

W.G. Lea, Q.C. Maritime Electric Company, Limited

Reference is made to the Board's letter dated 18 October 2002. On 9 October 2002, J.A. Snider was appointed to the Federal Court of Canada, Trial Division. As a result, J.A. Snider was not involved in the preparation and issuance of these Reasons for Decision.

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L.C. Ratelle Société en commandite Gaz Métropolitain

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## Chapter 1

## Introduction

## 1.1 Section 58 Application

On 6 March 2002, Maritimes & Northeast Pipeline Management Ltd. (M&NP or the Applicant), on behalf of Maritimes & Northeast Pipeline Limited Partnership, applied to the National Energy Board (the Board or NEB) for an order, pursuant to section 58 of the *National Energy Board Act* (the Act), to permit it to construct, own and operate four compressor stations and one custody transfer meter station (CTMS) on its mainline. These facilities are required to allow M&NP to provide firm natural gas transmission service of up to 422,000 GJ/d (400,000 MMBtu/d) for EnCana Corporation (EnCana) on the M&NP system commencing in late 2005. See section 3.1 for a detailed description of the proposed facilities.

Natural gas to be transported on M&NP's system for EnCana would be produced and processed on platforms located in offshore natural gas fields near Sable Island as part of EnCana's Deep Panuke Project. EnCana plans to bring its gas onshore through a subsea pipeline which would connect with the existing M&NP mainline facilities near Goldboro, Nova Scotia. On 1 March 2002, EnCana [formerly PanCanadian Energy Corporation] filed applications for its Deep Panuke Project with the NEB and the Canada-Nova Scotia Offshore Petroleum Board. These applications are still being considered by the respective Boards.

On 23 May 2002, the Board issued Hearing Order GH-3-2002, which set down M&NP's application for a hearing commencing 16 September 2002 in Halifax, Nova Scotia and established Directions on Procedure and a preliminary List of Issues. On 9 July 2002, after considering the comments of parties, the Board finalized the List of Issues for the hearing (see Appendix I).

On 30 July 2002, the Board issued an amending order that revised the start date of the hearing to 30 September 2002 and the location of the hearing to Saint John, New Brunswick.

The Board heard evidence in Saint John, New Brunswick on 30 September and 1 to 4 October 2002 and final argument on 7 October 2002.

### 1.2 Environmental Assessment

The Board conducted an environmental screening in respect of the construction, operation, decommissioning and abandonment of the proposed facilities in compliance with the *Canadian Environmental Assessment Act* (CEAA). The Board ensured that there was no duplication in requirements under the CEAA and the Board's own regulatory process.

CS #2 - Amherst Head KP 224.2 Proposed Compressor Station (CS) EnCana Deep Panuke Project CS #3 - New Canaan KP 344.5 Proposed Custody Transfer Meter Station (CTMS) CS Baileyville US KP 566.8 CS #4 - Tracyville KP 475.5 Potential Lateral/Facilities CS #1 - Concord KP 107.3 CTMS - KP 1.1 Goldboro 2 M&NP Pipeline M&NE Pipeline Legend ..-.. SOEP SOEP EnCana Deep Panuke Project Goldboro Charlottetown CTMS. CS #1 Halifax **EDWARD** PRINCE ISLAND CS #2 Amherst NOVA SCOTIA PEI Lateral CS #3 Northeast Lateral Saint John Sussex **BRUNSWICK** St. Stephen CS #4 Frederictor NEW Belledune CS Baileyville Northwest Facilities Edmundston MAINE Cartier Pipeline Quebec City HAMPSHIRE NEW Dracut

M&NP/M&NE Pipeline System Map

Figure 1-1

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## Chapter 2

# Requests by New Brunswick, Maritime Electric and New Brunswick Power

#### 2.1 Preamble

Throughout this proceeding, the unique nature of this application has become apparent to the Board. The application seeks a section 58 of the Act exemption Order, the effect of which is to approve the construction of facilities required for the transportation of an incremental 400,000 MMBtu/d from Goldboro to the St. Stephen export point on the M&NP system. However, the Board notes that the transportation volumes underpinning the expansion have yet to be finalized as EnCana has the one-time right under Article I of the Firm Service Agreement (FSA) to decrease its contract volume of 400,000 MMBtu/d by any quantity up to a maximum of 200,000 MMBtu/d. This right has been described as the "step-down" option and was discussed at length in the hearing.

The Board also notes the evidence of EnCana that it is continuing to negotiate with potential domestic customers of natural gas and that a sale to Prince Edward Island (PEI) appears to be imminent. However, if such negotiations were to succeed, it follows that a portion of EnCana's Deep Panuke volumes could be utilized to provide natural gas to domestic customers. It is the latter point which adds further uniqueness to this application since it may reduce the incremental transportation capacity actually required on the M&NP system downstream of the interconnect of a proposed lateral which would be built to serve any such domestic customers.

While acknowledging the uncertainty associated with the volume of incremental transportation capacity that would be required on the M&NP system following the possible exercise of EnCana's step-down option by 31 July 2003, and the uncertainty regarding the ultimate transportation paths for the proposed Deep Panuke production, M&NP requested that the Board consider its application based upon the applied-for facilities, which assume a transportation commitment of 400,000 MMBtu/d to the St. Stephen export point. This has been referenced as the "base-case scenario" and M&NP argued that it ought to be approved in a timely manner. However, M&NP stated that, should the transportation volumes or paths associated with the EnCana volumes be revised, M&NP would file a revised engineering/hydraulic design study and related assessments to justify the design for the volumes and incremental facilities proposed from Goldboro to the St. Stephen export point.

## 2.2 New Brunswick Request for Board to Reserve its Decision

The Province of New Brunswick (New Brunswick) argued that the Board ought to reserve its decision pursuant to subsection 19(2) of the Act pending the filing of further information regarding EnCana's production profile, what M&NP facilities are required and pending the issuance of further directions on procedure. New Brunswick submitted that a reserved decision under subsection 19(2) is the most practical and sensible way of dealing with M&NP's application at this time. In New Brunswick's view, a reserved decision would provide the Board, the parties, potential gas purchasers and EnCana with the greatest flexibility to respond to the changing circumstances that are likely to occur.

New Brunswick provided the following grounds for requesting that the Board reserve its decision: (i) a reserved decision would be in the public interest; (ii) a decision reserved until the summer of 2003 would create no prejudice to either EnCana or M&NP; (iii) the M&NP application is premature and incomplete; (iv) a reserved decision would spare everyone, but especially the Board, from having to address a sizable package of difficult regulatory issues that might become moot if circumstances change; and (v) the EnCana, M&NP and Maritimes & Northeast Pipeline, L.L.C. (M&NE) projects are uncoordinated based on the evidence before the Board. On this last point, New Brunswick submitted that the Board should direct that M&NP, M&NE and EnCana prepare an overall integrated project plan and keep all parties informed about progress along the critical path of that plan.

M&NP argued that it and others, such as EnCana, PEI and Maritime Electric, need to know the Board's decision on this application without delay. To provide comfort to Canadian natural gas customers that a decision earlier than 31 July 2003 would not prejudice their interests, M&NP stated that it is prepared to accept a term and condition of a section 58 approval that the approval does not and cannot take effect until 31 July 2003.

The Applicant stated that it needed the Board's decision without delay to know whether its four-station, 15 megawatt (MW) per station, design is acceptable. If not, further costly and time-consuming engineering and environmental work would be required to seek and obtain approval for different station sites. M&NP also noted that it cannot revise its hydraulic design for any domestic lateral until it knows what base case is to be revised. Other reasons for a timely decision related to the requirement to undertake additional environmental field work and the need for some signs of progress for the Deep Panuke project.

EnCana also urged the Board to issue a timely decision. It stated that a late-2005 startup for the Deep Panuke project is predicated on engineering procurement and fabrication starting at about the end of the first quarter of 2003, which in turn is predicated on regulatory approvals and EnCana Board of Director sanction being in place. EnCana stated that approval of the M&NP expansion is as critical to the decision to proceed with the Deep Panuke project as the project approvals themselves.

When it was questioned on whether approval of M&NP's application at this time would enhance or improve EnCana's bargaining position, PEI responded that it would be more prejudicial not to have an approval in place and not to be able to move forward with a PEI Lateral, than any prejudice that would be experienced by having an approval and EnCana having somewhat of an advantage in negotiations. On balance, PEI was of the view that negotiations are proceeding fairly and that to not have an immediate approval of this project would be far more prejudicial in the long term.

#### Views of the Board

If the Board were to reserve its decision, it would leave all issues open and provide no certainty on any aspect of the project, whereas an approval with appropriate conditions provides all parties with some degree of certainty and allows M&NP to advance the applied-for project, focussing only on specific issues and concerns identified in this proceeding.

The views which are detailed in these Reasons for Decision and especially those contained in Chapter 7 herein provide a reasonable justification as to why the Board was

not convinced that, based on the various grounds raised by New Brunswick, it should reserve its decision. The Board is of the view that issuing this decision and the Order, as appropriately conditioned, would better serve the public interest than would reserving its decision altogether, and should not negatively interfere with the prevailing market forces. Further, in respect of the argument suggesting that the application was incomplete and premature, the Board is of the view that careful consideration has been given to these concerns which are linked to the uncertainties referred to above and believe that these Reasons for Decision should adequately address these concerns. Therefore, the Board denies New Brunswick's request that the Board issue an Order pursuant to subsection 19(2) of the Act declaring that the Board will reserve its decision.

However, parties should note that the views of the Board in Chapters 3 through 6 herein are based upon the application as filed under the base-case scenario and with no change proposed to the 400,000 MMBtu/d transportation commitment requested to the St. Stephen export point and the associated applied-for facilities. As stated earlier, there is a certain uniqueness to this application which can be attributed to the fact that the step-down option has yet to be exercised by EnCana and the fact that there remains uncertainty regarding the ultimate destinations proposed for the Deep Panuke production supporting the proposed application. As such, the Board has to consider these uncertainties and reconcile them with what the Board is now asked to approve in this application under the base-case scenario. The manner in which the Board has considered these issues are further detailed under "Other Public Interest Considerations" in Chapter 7 herein.

## 2.3 Maritime Electric and NB Power Requests to Impose a Condition to the Section 58 Order

Some parties suggested that the Board should condition any approval granted to M&NP for the construction of the proposed expansion facilities upon Board authorization of EnCana's exports of Deep Panuke gas supply to the United States (U.S.).

The Communication Energy and Paperworkers Union argued that the Board's approach to issuing approvals for new pipeline infrastructure effectively commits it to providing subsequent approval for energy exports. It suggested that, by issuing approval for facilities in advance of determining whether such exports are surplus to foreseeable Canadian needs, the Board is preempting a determination that such exports are surplus to Canadian requirements.

Maritime Electric submitted that the section 58 Order should be granted but subject to a condition whereby the exemption Order should not come into effect until a licence or an order authorizing the export of gas for which the expansion is granted comes into effect. It suggested that a condition on the section 58 Order need not require M&NP to entirely defer the work associated with the pipeline expansion. Non-controversial aspects of the expansion could proceed to the point where expansion capacity would not exceed a specified amount until EnCana has received export authorization for more than the specified amount.

New Brunswick Power Corporation (NB Power) argued that a condition should be attached to the section 58 Order to require that EnCana provide, in the context of an export licence application, the information

from which Canadians can determine if they are getting fair negotiations with EnCana, and if they are not, a process for Canadians to complain to the Board in order to get access to the gas at a fair price.

EnCana argued that there was no justification for Maritime Electric's request to make the approval of the M&NP application contingent on the approval of an export order. It noted that there is no notice process or complaints procedure associated with applications for short-term export orders, and if Maritime Electric was intent on advancing a complaint, there are other existing avenues for it to do so.

With respect to NB Power's request, EnCana noted that it intends to make short-term sales into the export market and therefore does not require an export licence. EnCana viewed NB Power's request as a remake of the New Brunswick proposal that was rejected in MH-2-2002. EnCana argued that NB Power was advocating the same filing requirements that the Board concluded would be prejudicial and unreasonably burdensome, and the establishment of a complaints procedure for short-term sales that the Board concluded would be impractical and imprudent. EnCana concluded that NB Power's request should be rejected.

Canadian Superior Energy Inc. (Canadian Superior) opposed any suggestion that the facilities approval process should be manipulated to incorporate conditions that would create artificial and unreasonable export authorization requirements. In this connection, it opposed the use of the facilities-approval process to force natural gas into markets that are not ready or willing to receive it. Canadian Superior suggested that Canadian buyers of natural gas have had, and will continue to have, the opportunity to access natural gas supplies on reasonable terms. It noted that the Board's decision in MH-2-2002 provides additional protection for the domestic market and that potential Canadian purchasers only need to pursue arrangements on a timely and competitive basis to secure such supplies.

Canadian Superior argued that requiring a producer to obtain a long-term export licence for sales to short-term markets would not protect Canadian gas purchasers. Rather, such actions would be counterproductive to the public interest as it would threaten security of supply by discouraging exploration and production.

Nova Scotia Power Inc. (NSPI) and Emera Energy Inc. (Emera) argued that in the absence of unfair dealings, or bad faith, there was no evidentiary basis to support the extraordinary regulatory conditions regarding the export authorization. They suggested that NB Power's concerns have been satisfied, in part, by clarifying the 31 July 2003 service election date in the EnCana-M&NP FSA (see section 4.2 for an explanation).

#### Views of the Board

The Board finds no merit in compelling EnCana to obtain a long-term export licence for gas which EnCana intends to market in the U.S. on a short-term basis. The Board further notes that, under its regulatory scheme, there is no notice process or complaints procedure for short-term export orders. For many of the same reasons expressed in its MH-2-2002 Reasons for Decision, the Board is of the view that the evidence in this proceeding does not warrant a change in the regulation of short-term exports so as to impose a notice process and complaints procedure and that there is no justification to delay the approval of the M&NP facilities until such time as a decision is made on the export application. However, the Board will continue to monitor the Maritime gas market and will follow with a course of action as decided in the MH-2-2002 proceeding.

## Chapter 3

## **Facilities and Pipeline Safety**

## 3.1 Facilities Description

The applied-for facilities consist of four compressor stations (CS) and one CTMS for the purpose of expanding the capacity of M&NP's existing 567 kilometre (km) long, nominal pipe size 30 inch natural gas mainline to 1,019,700 MMBtu/d. As noted above, this expanded capacity is required to transport EnCana's incremental 400,000 MMBtu/d from offshore Nova Scotia to the Canada/U.S. border near St. Stephen, New Brunswick.

The CTMS will be located downstream of the existing Goldboro meter station in Guysborough County, Nova Scotia at the interconnect between EnCana's future on-shore pipeline, if approved, and M&NP's existing mainline at kilometre post (KP) 1.1. This station will include:

- (a) a pressure control system (to step the pressure down from EnCana's 14,895 kilopascals (kPa)<sup>1</sup> to M&NP's maximum allowable operation pressure of 9930 kPa);
- (b) a gas analyzer (to ensure EnCana's gas meets the quality requirements of M&NP's Tariff);
- (c) two ultrasonic meters (to provide 100 percent redundancy in the measuring of the gas flow from EnCana); and
- (d) a buy-back loop, with a meter (to allow EnCana to take gas from M&NP's pipeline if EnCana requires gas for purging, commissioning or processing use).

The four compressor stations will be located as listed below:

- (a) CS #1: Concord, Nova Scotia. At KP 107.3, which is approximately 0.5 km upstream of the existing Halifax Lateral take-off.
- (b) CS #2: Amherst Head, Nova Scotia. At KP 224.2, which is approximately 14 km east of the Nova Scotia/New Brunswick border (117 km downstream of CS #1).
- (c) CS #3: New Canaan, New Brunswick. At KP 344.5, which is approximately 120 km downstream of CS #2.
- (d) CS #4: Tracyville, New Brunswick. At KP 475.5, which is approximately 20 km south of Fredericton (131 km downstream of CS #3 and 91 km upstream of the Canada/U.S. border).

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To convert kPa to psig, multiply by 0.145

Compression of the gas will be provided by centrifugal compressors driven by gas turbines. Each station will have one compressor unit of 15 MW¹ nominal power. All stations will have both on-site and remote control operations. A centralized gas control facility, located at the existing Duke Energy Gas Transmission Gas Control Center in Houston, Texas will be able to monitor and control compressor station functions and perform operation troubleshooting.

The stations will be designed to a maximum operating pressure of 9930 kPa (1440 psig), consistent with the maximum allowable operating pressure of the existing transmission pipeline system.

The estimated capital cost of the project is approximately \$190,820,000 in as spent dollars. See Table 3-1 for a description of these costs.

Table 3-1
Mainline Expansion Estimated Capital Cost

Description	\$ 000
Compression Facilities:	
Materials	78,251
Installation	51,655
Land & Land Rights	461
Subtotal	130,367
Meter Station Facilities	
Materials	1,538
Installation	1,622
Land & Land Rights	112
Subtotal	3,272
Gas Used	1,387
General Development Costs	29,460
Contingency	15,485
AFUDC*	10,349
Finance Costs	500
Total	190,820

<sup>\*</sup> Allowance for Funds Used During Construction

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To convert MW to horsepower, multiply by 1341

## 3.2 Appropriateness of the Design

The appropriateness of the design was assessed based on transporting an increase of 400,000 MMBtu/d from KP 1.1 to the Canada/U.S. border.

In determining its design, M&NP scoped numerous possible expansion scenarios including combinations of various numbers of compressor stations, with various blocks of power and looping using various sizes of pipe. The Applicant considered not only the facilities that would be required for the incremental 400,000 MMBtu/d, but also the incremental build up of facilities required for each forecasted intermediate volume, ultimately leading to a 2,000,000 MMBtu/d system configuration. Through this process, looping was ruled out for the current expansion. Also, it was determined that for the ultimate configuration of 2,000,000 MMBtu/d, four stations with 30 MW each would be required. Therefore, the current expansion should use either 15 MW units or 7.5 MW units.

The merits of four versus five stations were the subject of debate at the hearing. New Brunswick suggested that the Board should not accept the four-station design based on the argument that a five-station design could transport more gas at lower tolls. However, New Brunswick based its argument on evidence supplied by M&NP that was developed for the purpose of evaluating looping versus compression, not for the purpose of comparing a four-station design to a five-station design. M&NP's detailed analysis indicated that the four-station design was superior to the five-station design in terms of capital costs, fuel costs, operation and maintenance costs, tolls, as well as environmental constraints, landowner issues and compatibility with potential future Canadian laterals. M&NP's sensitivity analysis concluded that the four-station design would be optimal for future Canadian laterals to northwest New Brunswick, northeast New Brunswick, Prince Edward Island, Pictou, Sussex and Amherst, Nova Scotia.

It was also pointed out by New Brunswick, and M&NP agreed, that five stations, each with 2 x 7.5 MW compressor units, would provide a more reliable design than four stations, each with 1 x 15 MW units. The five-station scenario would result in a total of 75 MW compared to the proposed four-station scenario at a total of 60 MW. New Brunswick also argued that the applied-for facilities (at 60 MW) would be oversized. M&NP replied that the five-station design would be more oversized (at 75 MW), not to mention considerably more costly.

The four-station design would use about 75 percent of the available power under design-day conditions. During the hearing, this was compared to the U.S. system which would operate at about 93 percent of its available power. New Brunswick questioned this difference and stated that this degree of excess power is unacceptable. M&NP stated that the difference between the Canadian expansion and the U.S. expansion is that the U.S. expansion includes looping and thus has maximized the utilization of compression.

The need for CS #4 was questioned during the hearing. Downstream of CS #4, M&NP's obligation is to provide gas at the Saint John Lateral inlet at a minimum pressure of 728 psig and to provide gas at the Canada/U.S. border at a minimum pressure of 950 psig. Under design-day conditions, CS #4 would operate at 55 percent of its available power, with the resulting downstream pressures of 1087 psig at the Saint John Lateral inlet and 950 psig at the Canada/U.S. border. Therefore, it was suggested that CS #4, with a 15 MW unit, is oversized for design-day conditions under the current expansion. However, M&NP stated that a single 7.5 MW unit would be insufficient, and an 11.2 MW unit was ruled out by

M&NP as not fitting in with its long-term expansion plans to an ultimate system capacity of 2,000,000 MMBtu/d. M&NP noted that there are secondary benefits to having a 15 MW unit at CS #4. These include reducing curtailments when another unit is down and maintaining the ability to discharge at the maximum allowable operating pressure when a large temporary demand is experienced.

Loss of a compressor unit was another issue addressed at the hearing. It was estimated that if a compressor unit goes down there may be curtailments of 15 percent to 30 percent of the contracted flow. M&NP stated that any curtailment would be spread out amongst the shippers on a pro rata basis.

## 3.3 Safety of Design and Operation

M&NP submitted that the design, installation and operation of the facilities would be governed by the Board's *Onshore Pipeline Regulations*, 1999 (OPR-99) which specify that the design, installation, testing and operation of the pipeline must be in accordance with the applicable provisions of the Canadian Standards Association standard Z662, *Oil and Gas Pipeline Systems* and all the applicable standards, specifications and codes that are incorporated by reference in that standard.

In addition to the above, and to the extent practicable, M&NP stated that it will standardize the design and general station layout of all four compressor stations. This will allow operations personnel familiarity with all stations thus resulting in a safer work and operating environment.

#### Views of the Board

The Board is satisfied that the proposed facilities would be designed, constructed and operated in accordance with the Act, OPR-99 and widely-accepted industry standards.

In the GH-4-98 Reasons for Decision, the Board set down certain general principles with respect to pipeline design as follows:

"An appropriate pipeline design must take into account a range of technical and non-technical factors, including the required design capacity. This capacity is selected based on present incremental market requirements as well as reasonably anticipated market growth. In general, the greatest efficiencies in pipeline design can be realized when pipeline capacity is determined to meet the specific and known needs of the market it is intended to serve. Long term or unknown needs can be accommodated through design criteria that ensure that the pipeline can be easily reconfigured or expanded at such time as future requirements are ascertainable. Once a design capacity has been selected, the specific design of the facilities can be determined."

In the current proceeding, the Board heard evidence and recognized that the proposed expansion would result in oversizing of the facilities. However, the Board also heard evidence that this oversizing not only provides secondary benefits, but more importantly, fits in with long-term future expansion plans in a reasonable and cost effective manner. As stated in GH-4-98, long-term needs should be accommodated by ensuring the facilities can be easily expanded. It is the Board's view that the proposed design, which would provide about 25 percent additional compressor power, is not unsuitable.

Further, M&NP's detailed analysis and sensitivity analysis strongly support the four-station design. The Board is of the view that five stations each with 2 x 7.5 MW units would be too costly and overbuilt to justify the added reliability.

With respect to the need for CS #4, the Board is satisfied that CS #4 is required regardless of which station results in the greatest curtailment when it is down. Further, the Board believes a 15 MW unit is appropriate for this station because a 7.5 MW unit is not adequate and an 11.2 MW block of power does not fit into the long-term expansion plan.

The Board is satisfied that M&NP's proposed design strikes a balance between reliability, expandability and costs. It is the Board's opinion that the four-station design, with a 15 MW compressor at each station, suitably meets the current and future needs of shipping gas to both domestic and export markets.

## Chapter 4

# Gas Supply, Transportation, Markets and Economic Feasibility

## 4.1 Gas Supply

As outlined in the Board's *Guidelines for Filing Requirements* dated 22 February 1995, the gas supply information required to be filed by an Applicant for an Order pursuant to section 58 is both shipperspecific gas supply (in this case EnCana's gas supply information from its Deep Panuke Offshore project) and overall supply (the study by Gilbert Laustsen Jung Associates Ltd. entitled *Gas Resource and Supply Study Scotian Basin Offshore Nova Scotia - A Study Prepared for Maritimes & Northeast Pipeline* (the GLJ Study)).

### 4.1.1 Project Specific Supply

M&NP sought leave of the Board pursuant to section 17 of the *NEB Rules of Practice and Procedure*, 1995 to incorporate by reference into this Application all gas supply and markets evidence tendered by EnCana in the related proceedings convened in connection with EnCana's application. Specifically, the gas supply evidence is found under Tab 2 - Geology, Geophysics and Petrophysics and Tab 3 - Reservoir Engineering of EnCana's *Deep Panuke Offshore Gas Development - Development Plan Volume 2* dated March 2002.

EnCana provided a probability distribution of Deep Panuke gas reserves as outlined on Table 4-1.

Table 4-1 Probabilistic Reserves - Abenaki 5 Field

P <sub>10</sub> OGIP		P <sub>50</sub> OGIP		P <sub>90</sub> OGIP		Expected OGIP		Expected Value SGIP	
$10^9 \text{m}^3$	Tcf	$10^9 \text{m}^3$	Tcf	$10^9 \text{m}^3$	Tcf	$10^9 \text{m}^3$	Tcf	$10^9 \text{m}^3$	Tcf
43.7	1.6	31	1.1	22	0.8	33	1.2	26.3	0.9

 $P_{10} = 10$  percent probability that the value will be equal to or greater than this value

Based on the Expected Value of SGIP, EnCana developed a Sales Gas Production Forecast which is reflected in the GLJ Study under the column labeled "Panuke" on Table 4-3. As noted by EnCana, the production forecast is based on a five-day flow test and extrapolated into an 11.5 year production profile. Further understanding of the full capabilities of the reservoir will only come after production commences. No other studies of the Deep Panuke Abenaki Reef play were submitted by intervenors.

 $P_{50} = 50$  percent probability that the value will be equal to or greater than this value

 $P_{90} = 90$  percent probability that the value will be equal to or greater than this value

OGIP = Original Gas in Place

SGIP = Sales Gas in Place

Responses to Information Requests, along with cross-examination by New Brunswick of the EnCana panel, centered mainly around the current status of drilling on licences either operated by EnCana, or in which EnCana has an interest, and around EnCana's future plans for its licences.

M&NP maintained an overall-supply view of the reserves supporting this application. With respect to the Deep Panuke reserves, M&NP emphasised that there has been no reduction of discovered gas resource estimates at Deep Panuke.

NSPI and Emera noted that the Deep Panuke prospect opens a second major supply sub-basin, the Abenaki Reef Play, in the Scotian Offshore. Furthermore, NSPI and Emera noted that EnCana will assume the supply risk and contract with M&NP for firm service for a 10-year period.

New Brunswick noted that EnCana declined to translate estimated undiscovered resource values into predictions of future commercial gas supply and that EnCana must wait until it has drilled a prospect and reviewed the data from that drilling before it makes any assessment of a prospect's commerciality. Therefore, EnCana's Deep Panuke project would not support any more than 935 billion cubic feet (Bcf) of gas production for transport on the M&NP pipeline. The Deep Panuke project will produce 400 MMcf/d for only three years before production rates sharply decline.

#### 4.1.2 Overall Supply

Other than the GLJ Study, the only other information concerning overall gas supply was submitted by New Brunswick. This information consisted of the written evidence of Dr. James Wright and Ian Atkinson on geology and gas reserves, which was adduced on the record of the MH-2-2002 proceeding but was only used as an aid to cross-examination in this proceeding. No other overall supply information was submitted by the intervenors.

The GLJ Study summarized estimates for offshore resources into four main play types as shown on Table 4-2. The resulting forecast of Scotian Basin Gas Supply Potential is shown in Table 4-3. It should be noted that Table 4-3 reflects the production profile tied to EnCana's Deep Panuke Development Plan.

Evidence concerning overall basin forecasted production was examined by the intervenors using the divisions of resources as per Table 4-3 (i.e., Sable Offshore Energy Project (SOEP) Tier I and II, Other Significant Discovery Licences (SDLs), Panuke and Undiscovered). The Deep Panuke production forecast was discussed under the Project Specific Supply section.

Table 4-2 Potential Marketable Gas Resources Estimates

Play Type	GLJ (Tcf)	Low (Tcf)	Average (Tcf)	High (Tcf)
Mature Established Plays (Missisauga/Mic Mac)	8	5	10.6	31.7
Immature Established Plays (Abenaki Reef Trend)	4.9	0.5	4.9	15
Near-term Conceptual Plays (Deep Water Turbidites)	5	5	15	25
Long-term Conceptual Plays (Other Basins)	0	0.3	3	17
Total	17.9	10.8	33.6	88.7

Table 4-3 Scotian Basin Gas Supply Potential (Marketable Gas in MMcf/d)

Year	SOEP Tier 1	SOEP Tier 2	Other SDLs	Panuke	Undiscovered	Total
2002	507					507
2003	507					507
2004	507					507
2005	507			300		807
2006	507			400		907
2007	507			400		907
2008	447	60		400	400	1307
2009	346	161		325	400	1232
2010	265	242		244	400	1151
2011	260	247		183	400	1090
2012	260	247		137	600	1244
2013	260	247		103	630	1240
2014	260	247		66	670	1243
2015	208	234	65		710	1217
2016	167	207	133		750	1257
2017	137	170	200		790	1297
2018	113	125	269		830	1337
2019	94	77	299		870	1340
2020	78	52	248		910	1288
2021	67	37	210		950	1264
2022	55	25	171		990	1241
2023	48	19	131		1000	1198
2024			103		1000	1103
2025					1000	1000
2026					1000	1000
Total Production (Bcf)	2229	875	668	934	5223	9932

#### **SOEP Tier I and SOEP Tier II**

In response to questioning by New Brunswick, M&NP acknowledged that the SOEP producers had written the reserves down from 3.5 Tcf to 2.6 Tcf and that the GLJ Study was being prepared at the same time. However, the forecasts do not reflect the most-recent revision to reserves or the recently-announced program to bring the Alma field into production earlier than previously forecast. During cross-examination, GLJ indicated that the general effect on the SOEP production profile would be that the start of production decline would be brought forward in time. In the near term, GLJ stated that the potential reserve reductions will have no impact on forecast production.

#### Other SDLs

In the GLJ analysis of the SDLs, GLJ included only those fields which were deemed to be economically producible in the near to medium term<sup>1</sup>. The test for economic viability assumed access to SOEI infrastructure as capacity became available on both the M&NP transmission line (sized for SOEI only) and the SOEI facilities. Due to this economic restriction, GLJ used only about 670 Bcf of production from the other SDLs. Without the economic restriction, the other SDLs total approximately 1.0 Tcf of discovered resources. The 1.0 Tcf estimate did not include any estimates for undiscovered resource potential associated with the SDL fields.

#### **Undiscovered Resources**

The GLJ Study included an estimate of 5.0 Tcf of resources for its Near-term Conceptual Play (Deep Water Turbidites), which Canadian Superior emphasised was at the low end of the 5.0 Tcf to 25 Tcf range. Canadian Superior also noted that had the medium estimate been used by GLJ, the ultimate gas potential for the Scotian Offshore would have been 27.9 Tcf, and not the 17.9 Tcf used in the GLJ Study.

The following additional evidence was brought out during the hearing as a result of New Brunswick's cross-examination of M&NP's witnesses.

- 1. Historical Finding Rates: New Brunswick questioned GLJ's use of 25 percent in its study, in light of the poor drilling results of the last 14 years. GLJ indicated that the historical finding rates vary from a low of between 5-10 percent to a high of 40 percent. The poor drilling results may have impacted the number to some degree but not enough to cause GLJ to alter the 25 percent estimate, as this was based on the long-term average.
- 2. Work Commitments (WC) and Future Investment Forecasts: The GLJ Study used a forecast of \$1.6 billion for every five years in a 25-year forecast. This equates to approximately \$8 billion over the next 25 years. The \$1.6 billion was derived from the minimum WC associated with each of the current offshore licences. As pointed out during cross-examination, the fact that a certain amount of dollars have been spent to date is offset by examples of WCs being exceeded. For instance, Exploration Licence (EL) 2360 with a WC of about \$8 million has had two wells recently drilled on it (Musquodoboit and Queensland). As well, EnCana will spend in excess of \$80 million

Medium term was defined as within the next 25 years.

- to acquire seismic data and drill a well, on EL 2380, where the WC is about \$1.2 million. M&NP argued that the \$1.6 billion should be viewed as a conservative number.
- 3. Finding Costs: The GLJ Study used finding costs in the order of \$0.65 per Mcf versus the \$0.78 per Mcf discussed by New Brunswick. GLJ's rationale was that the \$0.65 was the more appropriate number in that it excluded 20 successive dry holes drilled in the initial phases of development.
- 4. New Brunswick also suggested that the cancellation of the land sale this year in offshore Nova Scotia puts in question GLJ's extrapolation of future industry expenditures. GLJ responded that this was due to the fact that the industry has a lot of work to do on existing Licences.

New Brunswick argued that based on the evidence concerning overall gas supply:

- (i) estimates of undiscovered resources are not supply forecasts;
- (ii) attempts to convert estimates of undiscovered resources into estimates of actual supply are not reliable and the Board should give them no weight; and
- (iii) the Board should apply a feasibility standard related to gas supply which matches what Boards of Directors and bankers would apply.

In its response, M&NP pointed to the evidence of EnCana that the entire industry worldwide makes decisions on expectations based on a probabilistic view of the basin in question.

## 4.2 Transportation Arrangements

EnCana proposes to produce and process natural gas from the Deep Panuke field and bring it onshore through a subsea pipeline connecting with the existing M&NP mainline facilities near Goldboro, Nova Scotia. M&NP indicated that EnCana requires access to a liquid and diverse market which can absorb the volume of gas required to make the Deep Panuke project economic. EnCana has signed conditional firm service agreements with M&NP for transportation on both Canadian an U.S. portions of the pipeline. These agreements will ensure that EnCana can access the U.S. Northeast market and provide for the transportation of up to 422,000 GJ/d (400,000 MMBtu/d) of natural gas for a primary term of ten years. M&NP confirmed that EnCana would be responsible for the tolls associated with the capacity of 422,000 GJ/d for the full ten years even though production from Deep Panuke during that period may be a lesser amount. The FSA provides EnCana with the ability to extend the term of the agreement for a period of up to a total of 23 years.

Article 1 of the FSA allows EnCana the one-time right to decrease its maximum daily transportation quantity by an amount not to exceed 211,000 GJ/d. The timing of this "step-down provision" contained in Article 1 was discussed by several intervenors who suggested that Canadian parties assumed they would have until 31 July 2003 before EnCana was required to commit to its final transportation volumes. After that date, EnCana would seek reimbursement from prospective Canadian purchasers of Deep Panuke gas for transportation costs to Boston on the U.S. portion of M&NP. These intervenors noted that, while 31 July 2003 became the focus of attention as it was the latest possible date that EnCana

could exercise the step-down provision, Article 1 also provided EnCana with an option to exercise the step down at an earlier date. Depending on when the Board would render its decision on the expansion facilities, Article 1 provided that the step-down option could be exercised as early as 15 January 2003.

M&NP and EnCana confirmed that they have embarked upon good-faith negotiations to amend the FSA to provide for a single fixed step-down date of 31 July 2003 and that the terms of the FSA would not otherwise change in a material way. M&NP further confirmed that, in order to provide some comfort to prospective Canadian purchasers of Deep Panuke volumes that a decision by the Board prior to 31 July 2003 would not prejudice their interests, M&NP would be willing to accept a condition that any approval of its facilities application would not take effect until 31 July 2003.

By letter dated 5 November 2002, in response to an undertaking made during the hearing, EnCana filed the amendment to Article 1 of the FSA which provides that EnCana has a one-time right to step down no later than 31 July 2003.

M&NP suggested that the 31 July 2003 deadline might not, in itself, provide more time for domestic customers to negotiate with EnCana. It suggested that the facilities planning process for the construction of laterals creates practical deadlines for potential domestic customers that require significant new facilities. M&NP suggested that the required timing for signing a firm service agreement for transportation prior to the in-service date was about two years for a short lateral and about three years for a longer lateral. M&NP concluded that, for domestic customers requiring new facilities that are targeting a late 2005 in-service date, the time is now to let M&NP know that they have supply committed.

EnCana noted that for the Deep Panuke project to proceed, it must have transportation that guarantees market access for Deep Panuke gas. It argued that the approval of M&NP's application was essential to monetize the Deep Panuke discovery to the benefit of both EnCana, the Province of Nova Scotia, existing shippers and Canadian consumers.

Nova Scotia urged the Board to continue its practice of providing innovative solutions to unique circumstances that arise in the development of the Scotian Basin. It characterized the step-down provision in the FSA, as a desirable feature for potential Canadian consumers whose markets are developed to the point that they can utilize Deep Panuke gas, but noted that it creates uncertainty as to the volumes that will move to domestic and export markets through the applied-for expansion.

#### 4.3 Markets

#### 4.3.1 Natural Gas Demand

EnCana is planning to sell natural gas supplies transported on the M&NP system to markets in Canada, New England and New York. To assess the need for the proposed expansion, M&NP retained Navigant Consulting Inc. (Navigant) to develop projections of natural gas demand and to assess natural gas supply alternatives and transportation systems serving those market areas. The Navigant study concluded that there would be sufficient demand from both Canadian and U.S. Northeast markets to utilize the expansion capacity over the economic life of the facilities. Key findings of the Navigant study included:

(a) the Maritime and New England markets will require additional pipeline capacity by 2005 and the need is expected to grow throughout the forecast period;

- (b) even with the M&NE Phase IV facilities, New England is projected to require an additional 100 MMcf/d of capacity in 2005;
- (c) when the primary term of the EnCana contracts expire, New England is expected to require approximately 450 MMcf/d of additional capacity in 2015 over and above the Phase IV facilities; and
- (d) Atlantic Canada is projected to have a peak pipeline capacity deficit throughout the forecast period. From 2005 to 2030, the deficit for Atlantic Canada is projected to increase from 140 MMcf/d to nearly 450 MMcf/d.

M&NP submitted that the results of its open season for pipeline capacity, held in the fall of 2001, was further evidence that the expanded capacity would be utilized over the economic life of the facilities and that an additional capacity expansion would be required in the near future. During the open season, M&NP received requests from 18 parties contemplating transportation service during the 2004 - 2006 time frame. These requests comprised approximately 1,237,600 GJ/d (1,173,000 MMBtu/d) of producer demand and 673,100 GJ/d (638,000 MMBtu/d) of end-user demand for contract terms of up to 25 years in duration. Of the 18 requests, ten were from Canadian end-users totalling 483,750 MMBtu/d. While none of the requests have reached a level of viability to progress beyond the concept stage of project development, M&NP noted that it would follow its normal procedure for processing service requests.

M&NP canvassed all of its existing customers during the fall of 2001 to identify whether turnback capacity would reduce the need for incremental facilities and determined that no capacity could be made available for the EnCana volumes.

#### 4.3.2 Domestic Market Access to Deep Panuke Supply

Within its application, M&NP indicated that PanCanadian (now EnCana) would sell its natural gas to PanCanadian Energy (now EnCana Energy Services Inc.) in the United States. In response to an information request from the Board, M&NP submitted that it was advised that EnCana is not currently having discussions with U.S. customers concerning the sale of Deep Panuke gas and that EnCana's intention is to make short-term sales into the U.S. Northeast market. M&NP further submitted that EnCana is currently having discussions with Canadian customers concerning the sale of Deep Panuke gas and is prepared to make sales to Canadian customers on terms and conditions, including price, equivalent to those available to the export market. M&NP suggested that, while EnCana may not have made a final determination to which markets it will sell its gas, the evidence on the U.S. Northeast market and domestic markets is compelling and shows that there is an overall market demand for the gas.

M&NP recognized the importance of potential market deliveries in Canada and acknowledged that, while there are regional differences between the U.S. Northeast and Atlantic Canada markets, some of the challenges faced by the domestic market can be mitigated by M&NP's Lateral Policy which provides a subsidy for the construction of domestic laterals. In addition, M&NP noted that its four-station design was optimal in meeting demands from both the export market as well as significant deliveries, up to a maximum of 400,000 MMBtu/d, to potential domestic markets. M&NP noted that ultimate destination of the gas supply would be determined by EnCana through its negotiations with potential users. M&NP suggested that the market is working and that it would build the facilities required to link supply to the markets.

M&NP submitted that it is engaged in ongoing discussions with the PEI project proponents (Maritime Electric and PEI Energy Corporation) to construct a lateral from the M&NP mainline to serve Prince Edward Island. M&NP indicated that, while it has completed conceptual level cost estimates for the lateral, additional work was required to refine cost estimates. A signed FSA, evidence of gas supply and an agreement on the economics would be required to advance the project to the next stage of development. M&NP suggested that the PEI Lateral was the most prospective of the various conceptual projects for domestic laterals and expressed its optimism that the agreements necessary to advance the project to the next level could be executed by the end of 2002.

M&NP confirmed that it is having preliminary discussions with parties concerning the construction of laterals to the Annapolis Valley and Pictou County areas of Nova Scotia. M&NP suggested that demand prospects in these areas are related to gas-fired generation and industrial process load. M&NP advised that the plans for proposed laterals to Northeast and Northwest New Brunswick have been shelved by the proponents of these projects and that the discussions regarding the supply of natural gas to the Point Lepreau Nuclear Station have been superficial to date.

EnCana noted that its objective was to conclude a deal with one or more Canadian customers for the purchase of Deep Panuke supply. EnCana recognized that it is in the public interest for Canadians to have access to natural gas, and that it has been and continues to be willing to sell Deep Panuke gas to Canadian buyers subject to the negotiation of commercially-acceptable and mutually-acceptable terms and conditions.

EnCana noted that, while the Deep Panuke production profile does not lend itself to supporting long-term sales, it is negotiating with Canadian buyers and discussing various risk reward bargains as it would like to accommodate Canadian interests. EnCana argued that the step-down provision in the transportation agreement is for the benefit of Canadian purchasers. It noted its commitment to negotiate with M&NP to fix the step-down date at 31 July 2003 and suggested that this effort was due to EnCana's desire to have the maximum time contemplated in the agreement to accommodate Canadian interests and to reach deals with domestic buyers.

The Canadian Association of Petroleum Producers (CAPP) argued that access to markets is essential for the development of incremental supplies of Scotian gas and suggested that without the development of incremental gas supplies the opportunities for developing the Maritime gas market would be correspondingly limited. CAPP noted that, while the U.S. Northeast market is the anchor market for Scotian gas, there was evidence that the proposed facilities were proceeding with regard to the needs of domestic consumers. Negotiations with domestic energy consumers were continuing and the final contractual arrangements between M&NP and EnCana for transportation service would reflect the results of those negotiations.

Maritime Electric noted that discussions with M&NP have progressed to a general agreement on the terms upon which a lateral to PEI would be built. The acquisition of gas supply is required to take the lateral project to the next step. Although Maritime Electric has been negotiating with a number of parties, it had not yet reached a deal for supply. Maritime Electric expressed that it was reasonably pleased with the negotiations and that it was cautiously optimistic that a deal for supply would be reached.

Maritime Electric noted that if does not reach a deal with Scotian producers prior to EnCana exercising a step down of transportation volumes by 31 July 2003, it expects it would have to pay the M&NE toll from St. Stephen to Dracut, Massachusetts. Maritime Electric contended that this would add in excess of 20 percent to its cost of gas, and increase the cost of electricity produced by 10-15 percent, thereby rendering its project uneconomic.

NSPI and Emera did not view M&NP's application to be a detriment to future negotiations to increase their level of gas service. They suggested that, like everyone else, they have the opportunity until 31 July 2003 to negotiate with EnCana for supply. They further suggested that, rather than fighting new projects, many stakeholders recognize the need to encourage the building of infrastructure and offshore development.

NB Power expressed concerns over the pricing and availability of natural gas for domestic consumers. It suggested that market power could be used to increase the price of gas in the Maritimes. NB Power later confirmed that it has no evidence that market power was exerted in the pricing of existing contracts, but suggested that there are indications it is being applied in current negotiations for gas supply. NB Power claimed that there is a profit incentive for producers to move all of the Scotian gas to Dracut rather than divert any of it to Canadian customers. It believes that supply to Canadian customers could be withheld or offered only at higher prices that are designed to capture the lost netback opportunity costs arising from a reduced capacity expansion to the U.S. This would result in Canadians being charged more than U.S. customers for the same gas.

Nova Scotia argued that NB Power's requirement for gas and ability to put a project together to meet the July 31 step-down date was far from certain, and noted the many hurdles and steps NB Power would be facing to obtain a gas supply and a lateral. Nova Scotia further argued that while NB Power's heightened requirement for gas may have existed for some time, it has resulted in only one very superficial discussion with EnCana in the last few days.

Nova Scotia suggested that the Maritime Electric project should not be held up while NB Power attempts to develop a project and noted that NB Power was not asking for any special consideration beyond 31 July 2003.

PEI noted EnCana's optimism that a deal with PEI for gas supply could be reached within four to six weeks. It noted that this was critical for a couple of reasons. First, it would allow PEI to secure gas supply well before EnCana's step-down date of 31 July 2003, thus avoiding the otherwise negative impact on tolls. Second, PEI must conclude a FSA for transportation prior to the end of the 2002 calendar year to allow M&NP a three-year window to complete the lateral facilities design, seek the required approvals of the Board and construct the lateral. It noted M&NP's testimony that the timing was realistic given the efforts by all parties to negotiate an FSA by the end of the calendar year. PEI concluded that negotiations are proceeding fairly and that not having immediate approval of the application would be prejudicial to its interests.

New Brunswick argued that the Board should allow a reasonable period of time for Canadians to negotiate for the purchase of gas supply, make transportation arrangements, and for M&NP to factor those arrangements into its application. New Brunswick noted that Maritime Electric has not been able to negotiate a gas-purchase contract and is still not in a position to execute a FSA with M&NP for a lateral to Prince Edward Island. It also suggested that NB Power's interest in purchasing gas has recently

increased since the New Brunswick Board of Commissioners of Public Utilities recently decided to recommend against the refurbishment of the Point Lepreau nuclear station.

New Brunswick expressed a concern that M&NP did not include a preliminary design for a lateral to northwest New Brunswick as part of its planning of the proposed facilities expansion. New Brunswick claimed that the Northwest Facilities are on New Brunswick's agenda, however there was no evidence that there was a provision for a lateral to northwest New Brunswick in M&NP's proposed expansion.

## 4.4 Economic Feasibility

M&NP submitted evidence that the proposed facilities would be economic under a wide range of scenarios and assumptions. It claimed that the expansion would provide the benefit of lowering tolls for existing shippers relative to the status quo and that the benefit from the toll savings in the first ten years outweighed the cost of service associated with the expansion facilities in years 11 through 25 of their economic life. These benefits would accrue to shippers regardless of whether M&NP constructed the applied-for facilities or the reduced expansion of 211,000 GJ/d. M&NP considered the assumptions used in the net present value analysis to be conservative as it assumed that the EnCana FSA would not be renewed after the first ten years and that the expanded facilities would remain in the rate base. M&NP's net present value analysis is summarized below in Table 4-4.

While the EnCana FSA provides for a primary term of ten years, M&NP proposed to depreciate the expansion facilities over a 25-year period. M&NP submitted that, even though it has proposed to depreciate the expansion facilities over 25 years, the revenue from EnCana's 10-year FSA would more than recoup the cost of the proposed facilities under either of the expansion cases. Under the 422,000 GJ/d expansion, M&NP calculated that it would receive \$734 million in demand charges, or \$463 million on a net present value basis, from EnCana over a period of ten years. M&NP noted that the large amount of benefits to existing shippers was due to EnCana's pro rata contribution to M&NP's existing rate base. M&NP argued that the present value of \$463 million in tolls to be paid by EnCana is almost two and a half times the projected cost of \$190 million for the 422,000 GJ/d expansion case.

Table 4-4
M&NP Net Present Value Analysis

	Present Value Benefits	Present Value Costs	Net Present Value
10.86 percent discount rate	Years 1 - 10	<b>Years 11 - 25</b>	
Base Case 422,000 GJ/d	\$233.9	(\$61.3)	\$172.6
Reduced Capacity 211,000 GJ/d	\$160.9	(\$35.4)	\$125.5
7 percent discount rate			
Base Case 422,000 GJ/d	\$268.4	(\$104.6)	\$163.9
Reduced Capacity 211,000 GJ/d	\$184.8	(\$60.3)	\$124.5

M&NP argued that the positive net financial benefit would reduce risk for existing shippers. Moreover, since many existing shipper contracts expire prior to that of the EnCana contract, those existing shippers would only receive benefits as a result of the expansion.

Notwithstanding the assumption used in the net present value analysis that the EnCana 10-year FSA would not be renewed, M&NP suggested that the expansion facilities will be adequately utilized during their economic life and that the facilities expansion and the corresponding lowering of tolls would help to further the development of East Coast supply and the Maritime market for natural gas.

NSPI and Emera supported M&NP's application and noted that the construction of new facilities would further the development of Scotian supply while providing benefits to existing shippers. They noted that EnCana would be assuming the risk of supply and that the tolls payable by EnCana over the 10-year primary term of the contract, for either the base or reduced capacity expansion case, would more than cover the costs of the facilities and provide a net benefit to existing shippers. NSPI and Emera suggested that the filed supply and demand studies establish a good probability that the facilities would continue to be used over their economic life.

The East Coast Producer Group was not opposed to the proposed expansion but noted that it would support a process requiring a filing by M&NP of the facilities and economic details of any changes and an opportunity for comments by interested stakeholders and, if appropriate, a further Board process to deal with those changes. Similarly, J.D. Irving, Limited expressed its support for the pipeline expansion but noted that, should EnCana decide to take a material step down under the FSA by the 31 July 2003 deadline, interested parties should have an opportunity to review and comment upon revised financial assumptions of the pipeline expansion. The KeySpan Delivery Companies expressed their support for the proposed facilities expansion and urged the Board not to place any undue weight on hypothetical scenarios or projects in order that the Scotian basin could be developed on a realistic time frame.

Nova Scotia supported M&NP's application and noted that the facilities would provide mainline capacity to serve economic markets in the Maritimes and provide the necessary impetus for the development of domestic infrastructure. It suggested that EnCana's significant 10-year commitment to transportation provides EnCana and others the required incentive to make the necessary investments in exploration and development that are required to develop the undiscovered resource potential of the Scotian offshore basin. It argued that this would eventually lead to greater liquidity and price discovery and thereby address many of the characteristics of the immature basin that gave rise to the concerns expressed during the MH-2-2002 proceeding.

### Views of the Board

The Board traditionally determines economic feasibility by assessing the likelihood that the applied-for facilities will be used at a reasonable level over their economic life and that the associated demand charges will be paid. In determining whether this is likely to occur, the Board evaluates a number of factors including project-specific and overall gas supply, transportation arrangements, markets, potential competition and the effects of any toll increases caused by the expansion.

In this case, the only project-specific supply put forward by the Applicant is for EnCana's Deep Panuke field. The Board notes that supply from this field is projected to

decline after just a few years and that by year ten will produce less than 20 percent of the volume contracted on M&NP. The Deep Panuke field, by itself, does not provide a strong indication that the facilities would be used at a reasonable level. The Board believes however, that the project-specific supply must be considered in the context of the prospectivity of the basin, M&NP's ability to compete for any new supplies, the favourable economics of this expansion and EnCana's commitment to assume any supply risk for the first ten years.

With respect to overall supply, the Board is not prepared, as New Brunswick requested, to attribute zero weight to overall supply studies. Although there is great variability in the estimates of ultimate potential for this nascent basin, even the lowest estimate is far above the reserves that would be required to achieve high utilization rates of M&NP's expanded capacity. Producers have made large work commitments related to existing exploration licences, and EnCana, in particular, has incentive to continue exploration in light of the demand charge commitments it has made to M&NP. The Board recognizes that the uncertainty associated with supply is higher in the early stages of basin exploration and development than in the more mature stages. On the other hand, the timely availability of pipeline infrastructure can be a factor in industry's plans to continue exploration. The Board recognizes that M&NP may have to compete for the opportunity to transport new supply. As the owner of an established pipeline terminating in a liquid market hub, it should be in a strong position to compete for its share of supply.

Therefore, the Board is satisfied that the overall supply study, including the Deep Panuke supply, demonstrates that there is a reasonable expectation that Scotian offshore gas resources will be developed under favourable economic conditions over time.

The existence of a long-term transportation agreement for the full amount of the expanded capacity is further evidence that the facilities would be used at a reasonable level over their economic life and that demand charges would be paid. The Board is of the view that considerable weight should be placed on EnCana's commitment to pay the demand charges arising from the FSA it signed with M&NP. The financial commitment to pay \$734 million in demand charges, regardless of the volumes transported, provides a strong incentive for EnCana to explore, develop and produce supply adequate to utilize its capacity entitlements on the proposed facilities.

With respect to markets, the Board notes that no intervenor challenged M&NP's evidence that long-term gas demand exists. The Board is satisfied that natural gas demand in the U.S. Northeast and Maritime markets would be sufficient to support the proposed expansion capacity over the economic life of the facilities.

In its GH-6-96 Decision, the Board noted that a primary objective of the SOEP and M&NP projects was to provide access to natural gas for the Maritime markets. The Board recognizes the need to further develop the potential of the Scotian basin so that incremental supplies of natural gas may become available. With respect to the current application, the Board is of the view that one of the primary benefits of the proposed facilities is the ability to develop incremental supplies of Scotian gas. In addition, the Board is mindful of the commitments made by EnCana and M&NP to proceed with regard to the needs of domestic energy users.

Finally, in respect of economic feasibility, the Board notes that M&NP will be receiving from EnCana \$734 million in demand charges for \$191 million in incremental facility costs. Under either the base or reduced capacity case, the tolls payable by EnCana for the contracted volume over the 10-year period would more than cover the cost of the facilities and provide a net benefit to existing shippers. The results of the full expansion would nearly double the capacity of the system while serving to lower tolls for existing shippers by approximately one-third compared to the status quo. The Board accepts M&NP's evidence that the benefits to existing customers arising from the toll savings outweigh the cost of service associated with the proposed expansion throughout the economic life even if EnCana's FSA is not renewed and the transportation volumes are not replaced after the first ten years of operation.

In conclusion, the Board is satisfied that the proposed facilities would be used at a reasonable level over their economic life and that the associated demand charges would be paid.

## Chapter 5

# Land, Consultation, Socio-Economic and Environmental Matters

#### 5.1 Land Matters

In its application, M&NP requested exemptions under section 58 of the Act from the requirements of subsections 31(c) and (d) and section 33. The effect of this exemption would be to relieve M&NP from the requirements to file plans, profiles and books of reference for the proposed facilities. The land requirements and locations for the proposed facilities are shown in Table 5-1.

With respect to the four compressor stations, M&NP stated that notices pursuant to section 87 of the Act were served and that landowners have signed an Option to Purchase for the sale of the required land to M&NP. In the case of New Canaan, CS #3, the New Brunswick Department of Natural Resources and Energy has begun its administrative process to transfer ownership to M&NP of the proposed site as well as to transfer rights to NB Power for a potential pole line to deliver power to the site.

M&NP indicated that the CTMS is proposed to be located at or near the termination of EnCana's onshore facilities and downstream of the existing SOEI meter site. The CTMS is to be built in conjunction with EnCana's facilities, and both M&NP and EnCana will work with the Municipality of the District of Guysborough to determine final siting dimensions and access requirements. In addition, M&NP and EnCana agreed that the access road to the CTMS will abut or overlap the EnCana pipeline easement. The Municipality of Guysborough has provided a letter of non-objection for the CTMS.

M&NP indicated that it is working with EnCana to determine an appropriate location for a tie-in to the M&NP system. The routing has mainly been selected by EnCana for its onshore pipeline coming from the shore to meet with M&NP's pipeline. Prior to the start of the hearing, M&NP contacted EnCana who confirmed that the routing is still subject to detailed work on topographic survey. M&NP indicated that at this time it is still appropriate to say that the route is within EnCana's proposed corridor.

In the event that EnCana's final route moves substantially outside of its proposed corridor, M&NP's CTMS and access road could potentially go outside that corridor as well. When the final decision is made with respect to the location of the site, access road, and the type of land agreement needed, M&NP will file with the Board the notice required by section 87 of the Act.

M&NP noted that the specific locations of the four compressor stations and the CTMS have not been called into question during the hearing. M&NP conducted substantial public consultation and was able to satisfactorily address all issues raised during the consultation process. The directly-affected landowners have either signed options or agreed in principle to provide the required land to M&NP. No interventions, opposition, or concern from any of the affected parties, in M&NP's view, add up to support the exemptions requested in the application.

Table 5-1
Land Requirements and Location

Facilities	Area	Location
Concord, CS #1	± 16.4 hectares (40.6 acres)	At KP 107.3, which is approximately 15 km south of New Glasgow/Westville/ Stellarton near Concord, Nova Scotia
Amherst Head, CS #2	± 20.2 hectares (50 acres)	At KP 224.2, which is approximately 24 km northeast of Amherst, Nova Scotia
New Canaan, CS #3	± 20.2 hectares (50 acres)	At KP 344.5, in Westmorland County in a remote area of Crown land about 16 km north of Route 112
Tracyville, CS #4	± 13.1 hectares (32.4 acres)	At KP 475.5, which is approximately 20 km south of Fredericton
Goldboro 2	± 60m X 85 m (197 ft X 279 ft)	downstream of the existing Goldboro meter station in Guysborough County, Nova Scotia at the interconnect between EnCana's future on-shore pipeline and M&NP's existing mainline at KP 1.1

#### Views of the Board

The Board accepts M&NP's rationale for determining the location of the proposed facilities and land requirements for each compressor station and the CTMS. The Board notes that the final locations of the CTMS, access road and power line are conditional on EnCana's detailed route approval for the proposed onshore pipeline section of the Deep Panuke Project. Given that the routing for the Goldboro 2 CTMS power line and access road is not finalized, M&NP would be required to file with the Board, prior to construction, a site-specific environmental assessment that would include any changes to site locations or land requirements, as required by Condition 12 of the Order in Appendix II.

In deciding whether to grant the exemptions sought by M&NP, the Board notes that M&NP has already acquired the land rights for the compressor stations and that the Municipality of Guysborough has provided a letter of non-objection for the CTMS. In addition, M&NP stated that it could accept a condition requiring it to demonstrate to the Board, prior to construction, that all required land rights had been obtained for the facilities and ancillary works. The Board is satisfied that the land acquisition process is well advanced and considers that Condition 3 of the Order in Appendix II would protect the rights of the remaining landowners who have not signed easement agreements.

## 5.2 Early Public Notification

M&NP submitted that between September 2001 and January 2002 it implemented an extensive early public notification and public consultation program. The objectives of this program were to introduce the project; obtain information from those most familiar with the area to identify any site selection

constraints; identify any issues and concerns; provide an opportunity for meaningful input into project decisions, including site selection; and facilitate issue resolution and ongoing communication.

M&NP reported that its public consultation program consisted of at least two rounds of public openhouse sessions, separate open-house sessions for local First Nations communities, and a number of supplementary information sessions and meetings. The Applicant also made contacts and held meetings with landowners and with representatives of local regulatory agencies, municipal governments, First Nations and other stakeholders.

The first round of open-house sessions was held in September 2001 in five communities close to the proposed facilities. These sessions were promoted through 21 advertisements placed in 11 local newspapers. In addition, 107 landowners within the potential compressor station siting zones were invited by letter. A second round was completed in November and December 2001 in three of the same communities, and two different ones. These were advertised through 17 notices placed in six local newspapers and invitation letters were mailed to 304 landowners within 1.5 km of each preliminary station location.

Information available at all the public open-house sessions included story boards describing the project, siting criteria and schedule; typical photos of the proposed facilities; M&NP system maps; information for landowners; gas distribution and marketing information; NEB information bulletins, including one on how to participate in a public hearing; and a brief exit questionnaire. Maps indicating the potential siting areas for the proposed compressor stations, including alternative sites under consideration were presented at the first round of open-house sessions, while mapping for the second round of sessions was updated to show the preferred site locations.

M&NP added that it offered to establish local community consultation groups as an additional mechanism for input into project planning and that it also held supplemental consultation meetings with respect to the Tracyville and Amherst Head compressor station locations.

For Tracyville, these were held on 17 October and 7 November 2001, to answer questions arising out of the 27 September open house. A second-round open house, held on 22 November, confirmed the proposed location which was accepted by the majority of attendees. M&NP held further meetings with the Tracyville Committee in January and February 2002 to address concerns regarding operations and security, noise, site layout and appearance, emissions, the environmental approval process, environmental site selection and environmental protection practices.

Additional municipal and public consultations also took place concerning the location for the second compressor station. After the preliminary selection of the preferred station sites, the Town of Amherst, the County of Cumberland, the North Tyndal Wellfield Advisory Committee, and local residents requested M&NP to consider finding an alternative to the proposed Green Road site, further removed from a nearby protected area and adjacent residence. On 7 January 2002, M&NP participated in a local town hall meeting, on January 9 it met with the Cumberland County Council and, on January 23, the Applicant held a third open-house session to consider an alternate site location, the Beecham Road site, which was ultimately endorsed by all stakeholders.

In addition to its public open-house sessions and its consultations with First Nations, M&NP stated that it consulted with regulatory agencies and local government representatives. At the federal level, this

included Environment Canada and Fisheries and Oceans Canada, and at the provincial level, the Nova Scotia Department of Environment and Labour and the New Brunswick Department of Environment and Local Government. These contacts sought to gather information concerning land use and zoning matters, and to notify them of open-house dates and locations. M&NP submitted that both departments indicated that the proposed facilities did not trigger their respective provincial environmental assessment processes. Comments from Environment Canada and Fisheries and Oceans Canada are addressed in the CEAA screening.

M&NP stated that it was committed to ongoing communication with stakeholders throughout the planning, construction and operating phases of the facilities. Prior to the facilities going into service, a general open house would be scheduled for key stakeholders to tour the facilities. Some ongoing communications will also be conducted as part of M&NP's annual awareness and continuing education initiatives.

During the public consultation process, issues identified by the public included noise, air emissions (health effects), safety and security, lighting, pollution, and employment and subcontracting information. Noise, air emissions (health effects), lighting and pollution are addressed in the CEAA screening, while other socio-economic matters are addressed in section 5.4.

Finally, M&NP asserted that it has been responsive to input from its consultation process, both in the development of mitigative measures and in the selection of facility locations, as evidenced by its change of location for CS #2 at Amherst Head. The Applicant noted that no affected landowners or members of the public opposed, or expressed concerns about the application, or intervened in the hearing.

## 5.3 Aboriginal Consultation

M&NP stated that as part of its aboriginal consultation process it hired Aboriginal Resource Consultants to conduct a consultation program that began with meetings with the political leadership of the Mi'kmaq and Maliseet Nations. To facilitate consultations, M&NP also provided funding to the Assembly of Nova Scotia Chiefs, the Union of New Brunswick Indians (UNBI) and the MAWIW Tribal Council. During these initial meetings, additional contacts for input were solicited as well as agreement from the leadership for further consultations.

Open-house sessions were held throughout the fall of 2001 in ten First Nations communities. The format at these open houses was consistent with that for the public ones and included, information on how to participate in the Board's approval process and an open comment and question period. In three cases, the meetings were primarily with the Chiefs and Councils. Meetings were also held with technical support personnel from the three Aboriginal groups. Field visits to the proposed CS #1 and CS #2 sites and the proposed CTMS site were conducted for the Nova Scotia Mi'kmaq environmental representatives, and no issues were raised. The UNBI requested a visit to an operational compressor station in Maine, which M&NP has taken under advisement.

M&NP reported that the issues identified during the Aboriginal consultation process included training and employment opportunities and other compensation benefits, and environmental concerns dealing with noise, pollution levels, effects on wildlife, and traditional use, which are addressed in the CEAA environmental screening report. M&NP's Aboriginal Consultation Report recommended that further

information be provided to Aboriginal communities on, the Traditional Ecological Knowledge (TEK) study, impacts on noise, impacts on air and water quality, opportunities for employment, training and contracting, and the Applicant's safety protocols. M&NP reported that it provided copies of its Environmental Assessment Report to First Nations organizations (Confederation of Mainland Mi'kMaq, MAWIW, UNBI, and the Union of Nova Scotia Indians) on 6 March 2002, and that this included the TEK study, information on noise abatement, and on impacts on air and water quality. On 30 September 2002, the Applicant also forwarded additional information addressing its safety protocols. M&NP added that it would undertake to forward additional information that was filed as part of the application proceeding.

M&NP submitted that it has new long-term agreements in place with MAWIW and UNBI, modelled after that with the Assembly of Nova Scotia Mi'kmaq Chiefs. The filed agreements establish joint advisory committees, create employment and contracting opportunities during construction and operations, reaffirm M&NP's commitment to mitigate environmental impacts and establish training and scholarship funds. M&NP elaborated that, with respect to employment and contracting opportunities, it provides updates through meetings of the advisory committees and that it has a two percent set-aside target for Aboriginal contracting within its capital program. It added that for this project it has already used Aboriginal Resource Consultants to assist in the aboriginal consultation program and Eskasoni Fish and Wildlife Commission to conduct the TEK study. In the past it has also hired aboriginal organizations to assist with clearing activities, environmental inspection, and site maintenance and security activities, and it has directed training and scholarship funds through both UNBI and MAWIW.

In written final argument, UNBI asserted that M&NP misrepresented its consultation process. It cited several examples in which it believed that M&NP had not held good faith consultations with its people. UNBI asked the Board to condition any approval granted to M&NP as follows:

- M&NP is to carry out good faith consultations with all the Aboriginal peoples and organizations in the Maritimes before proceeding with construction and such consultations to start immediately;
- 2. EnCana is to carry out good faith consultations with all the Aboriginal peoples and organizations in the Maritimes before proceeding with construction of their pipeline and the selling of natural gas from Deep Panuke and such consultations to start immediately;
- 3. M&NP to carry out good faith consultations on an ongoing basis during all planning, regulatory, construction and operational phases of this project and all projects in the past and any that may come up in the future;
- 4. M&NP to provide reasonable financing to enable Aboriginal organizations to assist their people in participating in the consultation process, toward capacity building, training and participation in opportunities arising from the project; and
- 5. EnCana to provide reasonable financing to enable Aboriginal organizations to assist their people in participating in the consultation process, toward capacity building, training and participation in opportunities arising from their Deep Panuke project.

In reply argument, M&NP first sought to clarify possible misunderstandings and details with respect to UNBI's examples, but argued that it has fully met the consultation requirements for a section 58 application, or for a certificate for that matter.

With respect to UNBI's proposed conditions, M&NP argued that it had engaged the aboriginal community in a consultation program leading up to the preparation of the Application and had also provided funding for a review of the Application materials. M&NP cited its long-term agreements with First Nations organizations as additional evidence of ongoing consultation and involvement in M&NP projects. M&NP reiterated that those agreements were freely entered into and that this is also evidence of continuing good faith, notwithstanding occasional understandable disagreements, such as on matters of appropriate funding. Finally, M&NP noted that no other First Nations group intervened to suggest that consultation was inadequate.

With respect to the proposed UNBI Conditions 2 and 5 in particular, M&NP noted that it could not be held responsible for consultations UNBI believes EnCana should engage in with them and that therefore these conditions do not apply to M&NP in the context of this section 58 application.

#### Views of the Board

The Board is satisfied that, as detailed in M&NP's Aboriginal Consultation Report, M&NP has provided both opportunities and funding for the First Nations leadership, specialist committees and communities to be consulted on the applied-for project.

With respect to the recommendations in M&NP's Aboriginal Consultation Report to provide information on the referenced issues, it is reasonable to assume that this would include the ongoing provision of updates as additional information arises and also that this information be made understandable. While M&NP undertook to provide further updates following the GH-3-2002 Hearing, the Board finds that M&NP should have provided follow-up information subsequent to the initial provision of its Environmental Assessment report in March. In providing future updates the Board notes that, given the technical nature of some of the environmental information, it would be helpful if M&NP would also prepare explanatory summaries oriented to a lay readership. This would foster not only better understanding but also improved relationships.

The Board is also satisfied that, through longer-term agreements, M&NP has also committed to further consultation, employment and contracting initiatives, training and scholarship funding, as well as environmental commitments. The Board notes that parties entered into the agreements freely.

With respect to UNBI's intervention, the Board notes while UNBI claimed that M&NP had not held good faith consultations, it did not refute any evidence in M&NP's Aboriginal Consultation Report. The Board is aware of past disagreements between UNBI and M&NP, and noted the similarity in both parties' allegations of phone calls and correspondence not being answered. The Board further notes that in the agreement signed between UNBI and M&NP and filed as part of GH-3-2002, Article 9 outlines provisions for Dispute Resolution. The Board commends UNBI and M&NP for including this as it is of the view that UNBI and M&NP are responsible for the agreements they enter into and sign, and that the Board is not in a position to mediate or arbitrate on disputes arising from these agreements. The Board reminds both parties that

it is not within its purview to resolve disputes over the interpretation of private contractual agreements and that should the parties have such concerns they should seek an alternative and more appropriate forum or court of competent jurisdiction.

Regarding UNBI's proposed conditions, the Board reminds the parties that the purpose of conditions is to specify the Board's requirements for the construction and operation of a pipeline. In considering whether a proposed condition should be attached to an approval, the practical effects of that condition, based on the circumstances of the particular application, must be addressed. Specifically, the Board must have regard for the clarity, certainty and direct relation of the proposed condition to the applied-for project.

Conditions 1, 3 and 4 as proposed by UNBI require the carrying out of good faith consultations or the provision of reasonable financing. In the Board's view, these conditions require a threshold of fulfilment inconsistent with the Board's criteria as discussed above and therefore are not appropriate. The practical consequences of addressing UNBI's concerns by way of conditions is that, despite reasonable attempts, the parties may not reach agreement on the fulfilment of the conditions. For example, the parties may be unable to agree on what extent of consultations is deemed in good faith or how much financing is reasonable. In the event of a failure to agree, a further Board process may be required to resolve any deadlock, thereby creating uncertainty for the project during construction or operation.

The Board has the same concerns with Conditions 2 and 5. In addition, the Board notes that these conditions are not directly tied to this application.

For the above reasons, the Board is of the view that imposing any or all of UNBI's proposed conditions would be inappropriate and undesirable in the public interest. Therefore, the Board is not prepared to attach those conditions to any order that may be issued in respect of this project.

#### 5.4 Socio-Economic Matters

M&NP submitted that the main socio-economic impacts resulting from the construction of the four compressor stations and the CTMS would be to generate positive employment and subcontracting benefits, including local sourcing of materials and labour.

M&NP stated that the construction of the four compressor stations would likely take place concurrently and would take approximately seven to eight months. Based on a November 2005 in-service date, most of the construction would occur between spring and fall 2005, although some work could begin in late 2004. Construction would typically require a daily on-site workforce of between 15 to 60 people per station, but generally it would average about 35. Construction labour costs are estimated at between \$6 and \$8 million per site. Work requirements would include welders, pipe fitters, electricians, instrumentation technicians and general laborers and equipment operators. Some personnel may be employed at more than one site.

M&NP submitted that the required labour would generally be sourced from in and around the specific locations and that workers would therefore be able to commute to the project sites. It added that the

labour markets in both provinces indicate that for most occupations there are qualified yet unemployed workers, available either in the immediate labour market or beyond local areas but still within the provinces. The type of construction involved is not appreciably different from some other projects that have been undertaken in the past within each region and the availability of trades and labour generally matches the skill-sets required for the project. Should it be necessary to import labour, then lodgings within proximity to the sites are available.

For the CTMS, M&NP stated that construction would only take about 6-12 weeks and would require a smaller workforce. The total expenditure for the CTMS is estimated at approximately \$1.4 million.

In terms of broader impacts during construction, M&NP estimated that, including direct, indirect and induced effects, the project would result in about 530 person-years of employment per station. Direct Gross Domestic Product impacts would account for \$19.2 million in Nova Scotia and \$16.9 million in New Brunswick. Total Gross Domestic Product impacts, including indirect and induced, would be \$77.5 million, including \$43.6 million to the Nova Scotia economy and \$33.9 million to the New Brunswick economy. Indirect and induced tax revenues are estimated to be approximately \$28 million for the two provinces.

For the operational phase of the project, M&NP submitted that no potential adverse impacts were identified, but that this phase would also generate positive, albeit not significant, socio-economic benefits. This would include some limited purchasing of supplies and services from local communities. M&NP estimated that each station would require operations and maintenance expenditures of approximately \$25,000 - \$30,000 annually. It also expects it would have to hire two to four new technicians to operate the compressor stations. Operation of the CTMS would not require additional labour and would involve minimal maintenance.

Due to the small workforce required and given the health and safety support from within the project, M&NP submitted that the proposed project would not place any stress on the health and safety services of nearby communities. Furthermore, M&NP would carry out an awareness and training program for the emergency response services in urban centers adjacent to compressor station locations.

In light of the socio-economic benefits of the proposed project, M&NP submitted that no mitigative measures are required in relation to the potential socio-economic effects.

#### Views of the Board

The Board concurs with M&NP that, while the socio-economic effects of the proposed project are likely to be modest, they are overall positive. The Board is further of the view that opening a second major East Coast supply basin and reducing the forecast tolls would help to further develop Maritime markets and ultimately bring longer term and wider socio-economic benefits to the region.

#### 5.5 Environment

As indicated in section 1.2, the Board, as a responsible authority, examined M&NP's application and prepared an Environmental Screening Report (ESR) in accordance with the CEAA. As well, under its own mandate, the Board considered environmental matters associated with the project and any resulting concerns are addressed in the ESR. The report also addresses the Early Public Notification process, facility site selection, and environmental, socio-economic and land matters, as set out in the Board's *Guidelines for Filing Requirements*.

Having reviewed the ESR and the comments on the report, in accordance with Hearing Order GH-3-2002 and the CEAA, the Board is of the opinion that, subject to implementation of the proposed mitigation measures and measures listed as conditions in the Order found in Appendix II, M&NP's proposed mainline expansion project is not likely to cause significant adverse environmental effects. This was the Board's ruling pursuant to paragraph 20(1)a) of the CEAA, as can be seen in the report.

A summary of the comments, M&NP's reply and the views of the Board are included in the ESR, a copy of which can be obtained from the Board.

## Chapter 6

## **Financial and Toll Matters**

#### 6.1 Depreciation Period and Allocation of Risk

M&NP plans to depreciate the proposed compressor and meter facilities over 25 years, which it stated would be consistent with what it did with the initial mainline facilities and all subsequent facilities since that time. M&NP noted that the initial mainline facilities did not have 25 years of supply underpinning those facilities and it chose an annual depreciation rate of four percent. Further, M&NP noted that EnCana could always renew its contract beyond the primary term of ten years and that M&NP could redeploy or sell the compressors at the end of ten years if there was no further supply forthcoming.

New Brunswick submitted that M&NP should depreciate its proposed facilities over ten years, which is the initial term of the EnCana service agreement, not 25 years. New Brunswick noted that M&NP could always apply to the Board to extend the depreciation period and lower the depreciation rate if it entered into new service agreements based on new gas discoveries in the future.

New Brunswick also argued that, if the Board does not choose to adjust the depreciation period, it should allocate the risk of the remaining undepreciated cost of the new facilities after ten years to M&NP's shareholders, applying the precedent of the Halifax Lateral decision in GH-2-99.

## **6.2** Delivery Pressure Charge

New Brunswick submitted that CS #4 at Tracyville, as proposed, is not required solely to meet Canadian needs. New Brunswick stated that the Tracyville compressor station has been designed to produce contracted pressure of 948 psig at the Interconnection Facilities with M&NE at the Baileyville compressor station, when all that is required for Canadian needs is enough discharge pressure to produce 325 psig at the end of the Saint John Lateral. Consequently, New Brunswick argued that some or all of the owning and operating costs of the proposed Tracyville compressor station should be recovered from M&NE through a delivery pressure charge.

As a precedent for a delivery pressure charge, New Brunswick cited the Board's GH-2-87 Decision and stated that the Board should require M&NP to amend its tariff to include a pressure charge. It noted that the Board probably does not need to decide on the amount of the pressure charge but it would have to state whether one will be required so that M&NP can take that into account going forward.

M&NP argued that a pressure surcharge is not warranted based on the facts. It noted that the suction pressures at each of the four stations in Canada are higher than the suction pressure at the border. M&NP stated that one can conclude from this fact that the Tracyville compressor station is not as critical to the Baileyville compressor station as the Canadian compressor stations are to each other, a point that M&NP considered to be very important.

#### Views of the Board

The Board does not believe that a 10-year depreciation period for the proposed facilities would be appropriate. First, the Board notes that a 10-year depreciation period for the compressor facilities would be inconsistent with the treatment adopted for the mainline and all subsequent laterals and facilities added since that time. Second, the Board finds it premature to adopt a 10-year depreciation period for these facilities given that EnCana could extend the primary term of its contract with M&NP, or that additional supply could be discovered and transported on the M&NP system which would extend the economic life of these facilities beyond ten years. The Board notes M&NP's evidence that it has options at the end of the ten years should no additional supply be forthcoming.

Given the positive economics of this expansion, the Board is of the view that M&NP's shareholders should not be placed at risk for the remaining undepreciated cost of the proposed facilities after ten years.

With respect to a possible delivery pressure charge at the Tracyville station, the Board notes that this topic was not specifically added to the List of Issues for this proceeding. This issue was first raised during cross-examination without the benefit of direct evidence from M&NP or other parties.

Though there was little evidence on this issue in this proceeding, the issue of delivery pressure tolls was discussed extensively in the GH-2-87 proceeding related to a TransCanada PipeLines Limited (TransCanada) facilities application. In the GH-2-87 Decision, the Board found that the provision of additional delivery pressure is a separate and distinct transportation service and that shippers using and benefiting from this service should be required to bear the incremental costs through a separate and incremental toll. With respect to the base pressure that should be used, the Board was of the view, in that case, that all shippers using the TransCanada system were entitled to a minimum delivery pressure not less than that which TransCanada had to ensure for the safe, effective and efficient operation of the integrated system as a whole. Further, the Board directed that the demand toll should recover the fixed owning and operating costs of the facilities that were necessary to raise the pressure from: (a) the higher of TransCanada's pipeline pressure under loss-of-unit conditions or the prevailing line pressure that would be required at all times (including loss-of-unit conditions) to (b) the requested guaranteed minimum pressure.

In the present case of M&NP, the evidence indicates that the required delivery pressure of 950 psig at the border is lower than the suction pressures at each of the four compressor stations. This fact was pointed out by M&NP. Therefore, the Board has difficulty understanding how M&NE would be receiving a benefit from a separate and distinct transportation service that is not being received by all other shippers on the system. Accordingly, in the Board's view, the request to implement a delivery pressure charge is unwarranted.

## Chapter 7

## Other Public Interest Considerations

A number of parties expressed their views on whether the proposed facilities are in the Canadian public interest. A summary of those views follows.

M&NP was of the view that it had demonstrated that the requested facilities are very much in the Canadian public interest. M&NP stated that the proposed facilities are a cost-effective way for it to provide transportation service for Deep Panuke gas. In M&NP's view, the benefits are manifold and there are no risks to shippers. The demand charges will be paid and the facilities are likely to be utilized at reasonable levels over their economic life. M&NP stated that the shippers would benefit from lower tolls and added that the facilities would promote development in the East Coast offshore and associated economic activity in Canada. Moreover, the construction and operation of the proposed facilities will not result in any significant adverse environmental effects.

CAPP noted that the present M&NP Project will facilitate the development of incremental Scotian gas supplies and the public interest favors such development, a point which the Board noted at page 40 of the MH-2-2002 Decision. CAPP also noted that, in the MH-2-2002 Decision, the Board said that the greater public interest requires that offshore development proceed with regard to the needs of domestic energy users.

CAPP asserted that the need for a mainline expansion to support incremental supply development is clear, and as such, CAPP submitted that the present M&NP application meets the test of the broad public interest. CAPP stated that it supported the application as filed.

EnCana stated that it recognizes that it is in the Canadian public interest for Canadians to have access to natural gas, and EnCana has been and continues to be willing to sell Deep Panuke gas to Canadian buyers, subject to the negotiation of commercially acceptable and mutually acceptable terms and conditions.

Further, EnCana stated that the fact that it may make sales to Canadian customers and may accordingly elect to reduce its transportation capacity below 400,000 MMBtu/d is also not a reason to delay the issuance of the Board's decision. In EnCana's view, the public interest is best served by allowing markets to work. Good faith negotiations with Canadian buyers are taking place. If a deal is reached, then EnCana may exercise its step-down provision and the Board will be so advised if it does. But otherwise, EnCana will require 400,000 MMBtu/d of transportation to ensure that Deep Panuke gas can access the U.S. Northeast, and that is what EnCana is asking the Board to now approve.

Maritime Electric submitted that simply granting the exemption order under the authority of section 58 of the Act would constitute a decision that tips the balance entirely in one direction. Maritime Electric also submitted that such a decision could not be characterized as being in the public interest, for the effect of it would be to provide benefits of Scotian offshore gas originating in the Deep Panuke site to those served through Dracut while such benefits would be withdrawn from Prince Edward Island. Maritime Electric sought specific relief whereby the decision on M&NP's application ought to be deferred until a

decision on a gas export application is made. This requested relief was addressed previously in section 2.3 herein.

NB Power submitted that its proposed condition to the order granting permission for the proposed facilities is an appropriate balancing of interests that preserves the public interest in access to Canadian gas by Canadians at fair prices. The condition which was proposed by NB Power was previously addressed in section 2.3 herein.

As more fully described and addressed in section 2.2, New Brunswick submitted that an interim order under subsection 19(2) of the Act and a reserved decision from the Board was the most appropriate way for the Board to fulfill its responsibilities for the public interest in this case.

PEI stated that the expansion proposal also carries benefits for the Maritime region. Deep Panuke gas means greater tax revenues for the citizens of Nova Scotia and a more robust offshore gas field can mean more jobs and secondary economic benefits for all. PEI stated that these are all good things and all need to be on the Board's mind in considering whether this project is in the public interest.

#### Views of the Board

As outlined above in Chapter 3, the Board is of the view that the facilities as applied for are appropriately designed to allow the incremental transport from Goldboro to the St. Stephen export point of 400,000 MMBtu/d of Deep Panuke production. However, as noted earlier, the FSA supporting the application, and pursuant to which M&NP would transport the proposed EnCana volumes, provides EnCana with the one-time right to step down where EnCana could decrease its transportation commitment to any volume between 200,000 to 400,000 MMBtu/d. The deadline for the exercise of EnCana's step-down option will be 31 July 2003, as the evidence has shown during cross-examination, and has later been confirmed on 5 November 2002 by EnCana through an undertaking response.

In respect of EnCana's step-down option, both EnCana and M&NP made strong commitments to continue to advance discussions and work with potential domestic purchasers of natural gas and have respectively stated that they would continue to negotiate domestic gas supply arrangements and associated facilities to be developed on the M&NP system. Both parties have recognized that as is the case with any negotiation, the outcome of the negotiations will largely be dependant upon potential domestic purchasers being serious and showing that they are ready and able to make the appropriate supply and project development commitments upon mutual and acceptable terms, at the proper time.

In the event of the step-down option being exercised by EnCana, or in the event that there is a reduction of the capacity required for export at the St. Stephen export point from the capacity which is now applied for, the Board notes that it has not been presented with nor has it considered facilities configurations that might be proposed should these events materialize.

However, having accepted that the proposed facilities are appropriately designed and sized for the transport of an incremental 400,000 MMBtu/d to St. Stephen under the base-case scenario, the Board is prepared to conditionally approve the facilities as

applied for subject to the Order coming into force at the latest of a) 31 July 2003 which is the deadline for the step-down option or b) M&NP having to make certain filings, one of them being the filing for approval of a revised engineering/hydraulic design in relation to the facilities proposed to support the contracted volumes if those end up being less than 400,000 MMBtu/d. Accordingly, the Board has decided to impose a condition pursuant to subsection 19(1) of the Act, the effect of which is to have the Order come into force at a later time. This condition is attached to the Order but the Board thought it useful to reproduce it in this section since it is in this section that the rationale for imposing such a condition is explained. The condition reads as follows:

- 24. This Order, pursuant to subsection 19(1) of the Act, shall not come into force until the following time, which ever of the two is the latest:
  - (a) 31 July 2003; or
  - (b) the filing by M&NP of the following information, and M&NP is hereby directed to file this information with the Board and serve it on all GH-3-2002 parties:
    - a confirmation of the final contracted volumes following the waiver or exercise by EnCana of the step-down option contained in Article I of the EnCana's Firm Service Agreement with M&NP;
    - ii) an indication of the proposed transportation paths on the M&NP system for EnCana's Deep Panuke production, including any additional delivery points or incremental domestic service that might be proposed in relation to EnCana or Sable Offshore Energy Inc. production, including proposed in-service dates, if any, for facilities that would be associated with incremental domestic transportation service on the M&NP system, as well as an update of the status of negotiations with potential domestic shippers; and
    - iii) for Board approval, a revised engineering/hydraulic design study to justify the need for the proposed facilities which may need to be redesigned if it appears that paragraph i) above provides a confirmation that the final contract volume is not for the full 400,000 MMBtu/d at the St. Stephen export point or that paragraph ii) above provides an indication that proposed transportation paths will differ from those evaluated under M&NP's base-case scenario.

In the event that, as a result of proposed domestic deliveries or EnCana exercising its step-down option for some other reason, the final contract volume is less than the full 400,000 MMBtu/d at the St. Stephen export point, the Board would initiate a process to consider the revised facilities design and would give interested parties an opportunity to comment on the revised design in respect of engineering considerations, or other associated concerns. The Board would anticipate that a written process would be

adequate to consider these submissions and any associated issues. If such a process is to occur, it is only after its conclusion that the Board could give the approval contemplated in Condition 24, thus, it is only at that time that the Order could come into force. Ultimately, the nature of the process will depend on the materiality of the changes which may be brought to light as a result of the information which M&NP is required to file in accordance with Condition 24.

The Board is prepared at this time to approve the proposed facilities. This approval is made possible as a result of the condition referred to above as well as the commitment of both EnCana and M&NP to continue to negotiate and exercise all diligence and work with potential domestic customers for the purchase of Deep Panuke supply. The Board is hopeful that these good faith negotiations will lead to finalizing commercial arrangements that would enable incremental domestic consumption of East Coast offshore natural gas as well as the development of associated M&NP facilities where required. The Board is also aware that other East Coast producers are in negotiation with domestic purchasers for incremental domestic natural gas service. These comments, along with the absence of any evidence of bad faith negotiations or the breakdown of ongoing negotiations for the provision of domestic service, are key elements which have enabled the Board to determine that the facilities as presently designed, or as may be appropriately redesigned in the event of a step down, are in the public interest. Not only is there evidence to suggest enhanced access of East Coast gas by domestic customers, but the Board notes that other public interests are served by benefitting from lower tolls as well as by increasing development in the East Coast offshore and associated economic activity in Canada.

The Board is of the view that EnCana's commitment to continue negotiations for incremental domestic supply until 31 July 2003 presents a useful opportunity for potential domestic users to contract for East Coast offshore production. The Board has suspended the time when the Order will come into force to no sooner than 31 July 2003 and it is hopeful that potential domestic customers will use this period of time to diligently assess their options for taking gas in the time frame contemplated for the first production from Deep Panuke and work diligently to conclude commercial arrangements for gas supply and M&NP facilities as may be appropriate in the circumstances.

This date of no sooner than 31 July 2003 is meant to offer an opportunity for serious, committed domestic customers to secure access to East Coast offshore gas production and was put forth by M&NP itself in its argument and supported by various other parties. However, the Board notes M&NP's argument where it observed that this date may not be the critical restraint since the lead time to construct laterals may require the finalization of commercial arrangements with domestic customers prior to that date. Therefore, the Board is of the view that serious domestic customers should govern themselves accordingly and is encouraged by PEI's statement that it can secure gas supply arrangements well prior to that date.

In conclusion, and as stated earlier, the Board's approval and finding that the proposed facilities are in the public interest has been made possible through the imposition of Condition 24 which in the Board's view strikes a fair balance between the varying interests expressed by the parties in the GH-3-2002 proceeding. The Board's approval and finding was also premised on the evidence of good faith negotiations occurring with

domestic customers. As stated in the MH-2-2002 proceeding, the Board continues to believe that the greater public interest requires that offshore development also proceed with regard to the needs of domestic energy users.

## Chapter 8

# **Disposition**

The foregoing chapters constitute our unanimous Reasons for Decision in respect of the application heard by the Board in the GH-3-2002 proceeding.

The Board is satisfied that the proposed compressor and meter facilities are, and will be, required by the present and future public convenience and necessity, provided that the terms and conditions outlined in the Order found in Appendix II are met.

J.-P. Théorêt Presiding Member

> K.W. Vollman Member

> > Calgary, Alberta November 2002

## Appendix I

# **List of Issues**

The Board has identified, but does not limit itself to, the following issues for discussion in this proceeding:

- 1. The economic feasibility of the proposed facilities.
- 2. The appropriateness of the design of the proposed facilities.
- 3. The safety of the design and operation of the proposed facilities.
- 4. The potential environmental and socio-economic effects of the proposed facilities.
- 5. The appropriate terms and conditions to be included in any approval which may be granted.
- 6. The appropriateness of including all related costs of the expansion into M&NP's tolls.

## **Appendix II**

## Order XG-M124-60-2002

**IN THE MATTER OF** the *National Energy Board Act* (the Act) and the regulations made thereunder; and

**IN THE MATTER OF** an application by Maritimes & Northeast Pipeline Management Ltd. (M&NP) dated 6 March 2002, pursuant to section 58 of the Act, filed with the National Energy Board (the Board) under File 3400-M124-14.

**BEFORE** the Board on 18 November 2002.

WHEREAS M&NP, by application dated 6 March 2002, applied to the Board for an order, pursuant to section 58 of the Act, to permit it to construct, own and operate four 15 megawatt compressor stations and one custody transfer meter station on its mainline (the Project);

**AND WHEREAS** the Board held a public hearing pursuant to Hearing Order GH-3-2002 in Saint John, New Brunswick during which it heard the evidence and arguments presented by M&NP and all interested parties;

**AND WHEREAS** pursuant to the *Canadian Environmental Assessment Act* (CEAA), the Board has considered the information submitted by M&NP and has performed an environmental screening of the Project;

**AND WHEREAS** the Board has determined, pursuant to paragraph 20(1)(a) of the CEAA that, taking into account the implementation of M&NP's proposed mitigative measures and those set out in the attached conditions, the Project is not likely to cause significant adverse environmental effects;

**AND WHEREAS** the Board's decisions on M&NP's application are set out in its GH-3-2002 Reasons for Decision dated December 2002 and in this Order;

**IT IS ORDERED THAT**, pursuant to section 58 of the Act, the Project is exempt from the provisions of sections 29, 30 and 31 of the Act, upon the following conditions:

- 1. M&NP shall cause the approved facilities to be designed, manufactured, located, constructed and installed in accordance with those specifications, drawings, and other information or undertakings set forth in its application and related correspondence.
- 2. M&NP shall implement or cause to be implemented all of the policies, practices, recommendations and procedures for the protection of the environment included and referred to in its application, the GH-3-2002 proceeding, any undertakings made to the Board and to other regulatory agencies, or in any of M&NP's relevant documentation.
- 3. M&NP shall, prior to construction of a facility, file with the Board a letter confirming that all required land rights have been acquired for that facility and ancillary works.

- 4. At least 60 days prior to construction, M&NP shall file with the Board the results of its archaeological review for the New Canaan power line and access road. Should the review determine that the project may cross areas of elevated archaeological potential, M&NP shall file, for approval, the results of its archaeological survey and any correspondence from the responsible provincial department.
- 5. At least 60 days prior to construction, M&NP shall file with the Board for approval a report on the plants of significance survey for the Concord and Goldboro 2 sites. The report should include a discussion of the methodology, results, and any applicable mitigative measures.
- 6. At least 60 days prior to ordering the compressor for station #4, M&NP shall file with the Board for approval, a revised ambient noise survey and revised noise impact assessment for compressor station #4 (Tracyville), that includes the residence located about 700 metres to the northwest of the compressor station along Highway 101.
- 7. At least 60 days prior to construction, M&NP shall file with the Board revalidated distances between the final compressor station site locations and all the receptor residences, for each of compressor stations # 1, 2 and 4 (Concord, Amherst Head and Tracyville). Should any of the distances be materially different from the distances used in the calculations for the predicted sound levels, M&NP shall file corresponding revisions to the predicted sound levels and assessments of the most impacted residences. Should there be a change in which residence is the most impacted, M&NP shall file for approval a revised noise impact assessment.
- 8. At least 60 days prior to construction, M&NP shall file with the Board for approval a lighting impact assessment that includes the proposed design for station lighting and an assessment of the options considered and their potential effectiveness in mitigating impacts from light.
- 9. At least 60 days prior to construction, M&NP shall file with the Board, its completed Environmental Protection Standards. This would include M&NP's environmental training program for the construction phase of the project.
- 10. M&NP shall ensure that a wood turtle habitat survey is conducted by a qualified biologist(s), for any areas affected by clearing or construction work related to the New Canaan road upgrades and power line installation. M&NP shall submit the survey methodology and results to the Board, with any proposed mitigation measures, for approval, at least 60 days prior to construction.
- 11. M&NP shall ensure that wildlife habitat field surveys are conducted by a qualified biologist(s) for each of the station properties. At least 60 days prior to construction, M&NP shall file with the Board a report, describing the methodology and schedule of surveys, all survey results and any additional mitigation measures.
- 12. At least 60 days prior to construction of the Goldboro 2 station and related facilities, M&NP shall file with the Board for approval a site-specific assessment of the environmental effects and mitigation measures pertaining to the station, access road and power line.

- 13. During construction, M&NP shall maintain for audit purposes at each construction site, a copy of the welding procedures and non-destructive testing procedures used on the project, together with all supporting documentation.
- 14. M&NP shall file with the Board, and maintain at its construction office(s), copies of any permits, approvals or authorizations for the applied-for facilities issued by federal, provincial and other permitting agencies, which include environmental conditions or site-specific mitigative, or monitoring measures. In addition, M&NP shall file with the Board, and maintain at its construction office(s), any subsequent variations to any permits, approvals or authorizations.
- 15. At least 60 days prior to operation, M&NP shall file with the Board, for approval, a facility integrity monitoring plan (the plan) applicable to all compressor stations. The purpose of the plan is to ensure that the station facilities are effective in containing any toxic substances, and minimizing fugitive emissions from being released. The plan shall include inspection and monitoring procedures, a schedule for monitoring of the facilities and any environmental components of concern, and a schedule for updating the plan.
- 16. M&NP shall conduct post-construction water quality testing and depth to water table measurements as submitted, if the well is accessible and the landowner agrees, for the closest or most impacted well within 200 metres of each station site (500 metres where blasting is required). If the test results demonstrate concerns, M&NP shall follow up with testing of additional wells within the 200 metre or 500 metre radius, and file the results with the Board.
- 17. Within 30 days of operation, M&NP is required to have updated its action plan framework for the annual reporting of GHG emissions that includes a review of GHG reduction initiatives or programs that apply to M&NP's facilities in Atlantic Canada, and reflects consultations with appropriate agencies and stakeholders.
- 18. Within 30 days of operation, M&NP shall file with the Board a confirmation, by an officer of the company, that the approved facilities were constructed in compliance with all applicable conditions.
- 19. For all project phases, M&NP shall report any wildlife observations or mortalities of species as identified through COSEWIC and/or federal or provincial endangered species legislation, to the appropriate provincial and federal agencies including the Canadian Wildlife Service.
- 20. Prior to June of the first growing season after the in-service date, M&NP shall file with the Board its Vegetation Management Plan, that has been developed in consultation with provincial and federal regulatory agencies including Environment Canada, and forward a copy of the plan to the appropriate regulatory agencies.
- 21. Within one year after the commencement of operations, M&NP shall file with the Board a report outlining the results of its sound levels monitoring at each compressor station.
- 22. M&NP shall conduct turbine stack surveys, to obtain emission profiles that include NOx emissions, and continuous meteorological monitoring during the first year of operation of each compressor station. M&NP shall verify the predictions of its air dispersion model using this

data. M&NP shall file with the Board, within 15 months of the facilities in-service date a report of the data results, analysis and model verification.

- 23. Unless the Board otherwise directs prior to 31 December 2005, the order shall expire on 31 December 2005 unless construction of the project has commenced by that date.
- 24. This Order, pursuant to subsection 19(1) of the Act, shall not come into force until the following time, which ever of the two is the latest:
  - (a) 31 July 2003; or
  - (b) the filing by M&NP of the following information, and M&NP is hereby directed to file this information with the Board and serve it on all GH-3-2002 parties:
    - i) a confirmation of the final contracted volumes following the waiver or exercise by EnCana Corporation (EnCana) of the step-down option contained in Article I of the EnCana's Firm Service Agreement with M&NP;
    - ii) an indication of the proposed transportation paths on the M&NP system for EnCana's Deep Panuke production, including any additional delivery points or incremental domestic service that might be proposed in relation to EnCana or Sable Offshore Energy Inc. production, including proposed in-service dates, if any, for facilities that would be associated with incremental domestic transportation service on the M&NP system, as well as an update of the status of negotiations with potential domestic shippers; and
    - iii) for Board approval, a revised engineering/hydraulic design study to justify the need for the proposed facilities which may need to be redesigned if it appears that paragraph i) above provides a confirmation that the final contract volume is not for the full 400,000 MMBtu/d at the St. Stephen export point or that paragraph ii) above provides an indication that proposed transportation paths will differ from those evaluated under M&NP's base-case scenario.

#### NATIONAL ENERGY BOARD

(Signed by)

Michel L. Mantha Secretary